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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/608,247 | 06/27/2003 | Joseph P. Borst | 12150 | 8560 |
| 28484 | 7590 | 01/05/2006 | EXAMINER | |
| BASF AKTIENGESELLSCHAFT CARL-BOSCH STRASSE 38, 67056 LUDWIGSHAFEN LUDWIGSHAFEN, 69056 GERMANY | | | ASINOVSKY, OLGA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1711 | |

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/608,247 | Applicant(s) BORST ET AL. | |
| | Examiner Olga Asinovsky | Art Unit 1711 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Terminal Disclaimer

1. The terminal disclaimer filed on October 20, 2005 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of the Patent 6,780,932 has been reviewed and is accepted. The terminal disclaimer has been recorded.

The obviousness-type double patenting rejection of claims 1-60 over claims 1-54 of Patent 6,780,932 is overcome in light of the proper Terminal Disclaimer.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al US Patent 6,172,164.

The rejection is set forth at pages 2-4 in the office action mailed on 01/31/2005 and at page 5 in the office action mailed on 06/23/2005. All discussions are adequately set here.

Claimed preformed stabilizer in the 1st present claim or a final graft polyol in the independent claim 28 is a graft polyol composition, wherein a phosphorous compound is present during the graft polymerization of a monomer with a macromer. The claim interpretation is a product-by-process. A product-by-process claim is a product claim.

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Claimed method for producing a preformed stabilizer in the independent claim 14 or a method for producing a final graft polyol in the independent claim 43 is a polymerization process wherein a phosphorous compound is present during the polymerization.

Davis discloses a process for making graft polyol that is a stable graft polymer dispersion. A stable graft polyol dispersion is produced by polymerizing ethylenically unsaturated monomer(s) with an unsaturated polyol=macromer in the presence of a free radical initiator, column 3, lines 14-41. The ethylenically unsaturated monomers include acrylonitrile, styrene and mixture thereof, col. 8, line 35. The claimed phosphorous compound is present in the resulting graft polyol dispersion, column 11, lines 49-60, for the present claims. The stable graft polyol dispersion in Davis invention is equivalent to a preformed stabilizer in the present claim 1 and in the final graft polyol in the present independent claim 28. A phosphate derivative as a flame retardant compound can be employed at any stage in Davis invention. There is no statement that a phosphorous compound in the present claims is a reactive compound.

It would have been obvious to one of ordinary skill in the art to modify a process of producing a graft polyol in Davis invention by employing a phosphate compound during the process for making a grafted polyol since there is no evidence in the present claims that a phosphorous compound is a reactive component or said phosphorous compound can make an effect on the polymerization process or effect on the resulting product.

The prima facie case of obviousness is that a graft polyol in Davis invention can be

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modified by employing a phosphate compound during the process of making a graft polyol as a flame retardant compound, this is being within the skill of a worker in the art.

Response to Arguments

4. Applicant's arguments filed 10/20/2005 fully considered but they are not persuasive.

The applicants' argument is that the macromer and the monomer are polymerized in the presence of a free radical initiator, a carrier polyol, and a phosphorous compound." In other words, a phosphorous compound is present during the polymerization process.

The examiner agrees that Davis does not show the presence of the phosphorous compound during the polymerization process. A phosphorous compound in the present claims can be present for any reasons. The final graft polyol product in Davis invention contains a phosphorous compound. The claimed product in the independent present claims 1 and 28 is equivalent to the graft polyol product in Davis invention although produced by a different process. A phosphorous compound in Davis invention is present as a flame retardant compound. There is no statement that a phosphorous compound can make effect on the resulting grafted polyol when said phosphorous compound is present during the polymerization process in the present claims. There is no statement in the present claims that a phosphorous compound is a reactive compound. There is no evidence in the present claims that a graft polyol has improved property by using a phosphorous compound during the polymerization process. It would have been obvious to one of ordinary skill in the art to modify a process of producing a graft polyol in Davis invention by employing a phosphate compound during

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the process for making a grafted polyol since there is no evidence in the present claims that a phosphorous compound is a reactive component or said phosphorous compound can make effect on the polymerization process, or improve property of the resulting product.

5. Claims 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis et al U.S. Patent 6,172,164 as applied to claims 1-56 above, and further in view of Huang et al U. S. Patent 5,223,570.

Claim 57 and independent claim 59 disclose a method for continuous polymerizing the monomer with a macromer and the preformed grafted polyol in the presence of an initiator and at least one phosphorous compound.

Huang discloses a method of producing a graft polyol dispersion in two steps comprising: (a) preparing an intermediate graft polyol dispersion, and (b) continuous graft polymerization.

It would have been obvious to one of ordinary skill in the art to modify a process for producing a graft polyol in Davis invention by continuous polymerization as disclosed by Huang because a continuous polymerization of graft polyol is a benefit for increasing size of the graft polymer particles and said continuous polymerization step is expected in Davis invention.

Response to Arguments

6. Applicant's arguments filed 10/20/2005 have been fully considered but they are not persuasive. The argument is that Huang does not disclose use of any phosphorous compound during any stage of the polymerization reaction. Davis does not make use of a phosphorous compound during a graft polyol polymerization reaction.

There is no statement to improve process in the present claims using phosphorous compound during the polymerization of graft polyol. There is no statement that a phosphorous compound is a reactive compound. A phosphorous compound can be present at any stage of making a graft polyol in Davis invention.

It would have been obvious to one of ordinary skill in the art to modify a process for producing a graft polyol in Davis invention by continuous polymerization as disclosed by Huang because a continuous polymerization of graft polyol is a benefit for increasing size of the graft polymer particles and said continuous polymerization step is expected in Davis invention, and therein a phosphorous compound can be present at any stage in the process for making a graft polyol in Davis invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims 1-13 and 28-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis et al U.S. patent 6,172,164.

All discussions in the paragraphs 3 and 4 are adequately set here.

The claimed product appears to be the same or similar to a foam product in Davis invention when graft polyol dispersions are used in the preparation of a polyurethane foam product with a phosphorous compound, column 11, lines 49-67.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). Since Davis et al reference was previously applied under 35 U.S.C. 103(a), the 102(b) rejection now made is not deemed to be a new ground of rejection since anticipation is. The 102(b) is the epitome of obviousness.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olga Asinovsky whose telephone number is 571-272-1066. The examiner can normally be reached on 9:00 to 5:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Olga Asinovsky
Examiner
Art Unit 1711

O.A.

December 27, 2005


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700